

REMARKS

STATUS OF CLAIMS

Claims 2-7, 9, 11, 12-13, and 15 are pending.

Claims 3-7, 9, 11-13 and 16 are rejected under 35 USC 103(a) as being unpatentable over Yao (US Patent No. 5,938,734) in view of Ueno (US Patent No. 6,438,596). Ueno is newly cited, and, thus, newly relied upon

Claims 3, 9, 11, 12, 13, and 15 are amended.

Thus, claims 2-7, 9, 11, 12-13, and 15 remain pending for reconsideration, which is respectfully requested.

The foregoing rejection is traversed. No new matter has been added in this Amendment.

REJECTIONS

Regarding the Examiner's reliance on Yao to reject the independent claim 3, 9, 11-13, and 15, it is again emphasized, as it was during the interview with the Examiner, that in the context of application/communication protocol layers/tiers, Yao relates to lower layer data transmission, while the claimed invention relates to higher layer (application or content level) data transmission, which the Examiner Supervisor also confirmed during the Examiner interview.

Therefore, the Examiner's rationale is not appropriate, because Yao does not disclose or suggest the present invention's distribution control unit distributing [↑] "a content" as real-time reproducible stream information," (all of the independent claims 3, 9, 11-13 and 15) in which the "distribution schedule information comprises a time and a date to start and to end the distribution of the content" (independent claims 3, 12, and 13), and in which "the reproduction control unit ... controlling the receiving device regarding the real-time reproduction of the stream information of the content at the receiving device" (amended independent claims 3, 12, 13 and 15), and "the reproduction control unit controls the receiving device to reproduce a higher priority stream information of a content over other stream information of other contents based on the stored importance level information" (amended independent claims 9 and 11). The Applicants emphasize that the claims recite distributing "a content," as well as a distribution date and time schedule of the content, or distribution importance level information for the content.

Yao differs from the present invention, because Yao relates to a real time stream server capable of realizing a supply of a plurality of real-time data with different data rates by a

scheduling scheme using constant time-slot interval and transfer start timing period (Yao, Abstract). Yao's constant time-slot interval and transfer start timing relates to lower level communication transfer of data blocks of a content, such as data blocks of a lecture or a concert, whereas the present invention relates to distribution at the content level, such as distributing the lecture or the concert on a date and time or according to importance level. In particular, Yao relates to block transfers in a lower layer data transmission protocol by dividing the real-time stream data into a plurality of blocks, each block being in a size to be transferred within a block transfer time, and sequentially distributing the blocks (column 3, lines 1-20), which differs from the present invention's application level distribution of "a content," for example, according to a scheduled time and date (claims 3, 12 and 13).

The idea of the present invention is to externally control real-time content level distribution to a receiving device and to externally control real-time reproduction of the content at the receiving device, which Yao and Ueno do not disclose or suggest. See, for example, page 32, lines 19-25; page 39, line 16 through page 40, line 19; and FIG. 9 of the present Application.

Ueno

To reject independent claims 3, 12, 13 and 15, in page 3 of the Office Action, the Examiner relies on Ueno, column 4, lines 32-50, to assert that Ueno discloses the present invention's reproduction control unit which controls said receiving device, regarding a real-time reproduction of the stream information.

First, Ueno cannot be combined with Yao, because Yao does not relate to the present invention and does not provide any motivation or suggestion to be combined with Ueno. Further, one skilled in the art would not be motivated to combine Yao with Ueno, because Yao does not relate to externally controlled content level distribution and externally controlled reproduction at a receiving device.

Second, even if one combined Yao with Ueno, the combined system would not disclose or suggest the claimed invention as follows. Ueno discloses a video on demand system providing an information transmission system 200 and an information relay system 212 as shown in FIG. 2, to improve communication efficiency to the set-top unit 211 (column 3, lines 45-48, column 9, line 16 to column 10, line 47).

However, the present invention is patentably distinguishing over Ueno, because contrary to the Examiner's suggestion, Ueno, column 4, lines 32-50 discloses providing "reproduction means for receiving and reproducing the real-time data," which differs than the claimed

invention, in which a reproduction control unit controls the real-time reproduction of the stream information of the content at the receiving device. As shown in FIG. 2 of Ueno, the reproduction means of Ueno is the receiving set-top unit 211 that controls reproduction of the real-time data received from the network. Ueno's FIG. 10 clearly identifies the components of Ueno's video on demand system, in which the reproduction means is the set-top units (STUs) 1010 through 1013 that receive and reproduce real-time data. More particularly, Ueno, column 4, lines 32-50, clearly disclose that the service control means, the communication-network-resources management means, and the storage resources management control means (server 200 and head end 212 in FIG. 2), only control video data distribution to the reproduction means (STU 211) as the receiving unit, and the server 200 and the head end 212 do not control the reproduction means (STU 211) to reproduce the video data.

Therefore, in contrast to Ueno, the present invention, using claim 1 as an example, recites, "a reproduction control unit ... ~~controlling the receiving device regarding the~~ real-time reproduction of the stream information of the content at the receiving device" (amended claim 3). For example, claims 3, 12, and 13 also recite, "wherein the distribution schedule information comprises information on a time and a date to start and end the distribution of the content, and the reproduction control unit controls the distribution control unit and the receiving device based on the stored distribution schedule information" (claim 3, see page 39, line 16 through page 40, line 19; and FIG. 9 of the present Application). In other words, in Ueno (as shown in FIGS. 1, 2, 4, 6, 7 and 10), the reproduction means is the receiving set-top unit 211 that controls the reproduction of the real-time data, and, for example, in FIG. 2 of Ueno, the server 200 and headend 212 that distribute the content to the set-top unit 211 do not control the set-top unit 211 regarding video data reproduction.

Independent claim 15 is amended for clarity. In particular, Ueno does not anywhere disclose the present invention as recited in claim 15, "controlling ~~conditions of the~~ real-time stream information reproduction conditions of the content at the client computer by the receiving device."

15. (CURRENTLY AMENDED) A data streaming network system, comprising:

a distribution server comprising a programmed computer processor distributing a content as real-time reproducible stream information to a client computer;

a transit control server in network communication with the distribution server and the client computer and comprising a programmed computer processor controlling the distribution of the content by the distribution server and controlling ~~conditions of the~~ real-time stream information reproduction conditions of the content at the client computer by the receiving device.

Independent claims 3, 12 and 13 are also amended for clarity, using claim 3 as an example, as follows:

3. (CURRENTLY AMENDED) An information distribution/reproduction control apparatus, comprising:

a distribution control unit distributing a content as real-time reproducible stream information to a receiving device;

a reproduction control unit controlling the distribution control unit regarding distribution of the content to the receiving device and controlling the real-time reproduction of the stream information of the content at the receiving device; and

a memory unit storing a distribution schedule information of the distribution control unit and the reproduction control unit,

wherein the distribution schedule information comprises information on a time and a date to start and end the distribution of the content, and the reproduction control unit controls the distribution control unit and the receiving device based on the stored distribution schedule information.

Regarding the rejection of independent claims 9 and 11, the Examiner relies, in page 5 of the Office Action, on Ueno, column 12, lines 23-34. However, Ueno, column 12, lines 23-34 relate to the second embodiment of Ueno, as shown in FIG. 4. In the second embodiment of Ueno, the headend functions are provided in the receiving unit set-up unit 411, as shown in FIG. 4. However, the second embodiment of Ueno still does not disclose or suggest that the server 400 can control reproduction at the set-top unit 411. Ueno, column 12, lines 21-24 expressly

discloses, “[i]n the present invention, the video data transferred from a server via a core network are classified into two types; an immediate data directly reproduced in a STU via a headend, and a temporary stored data temporarily stored in a storage unit of a headend.” In Ueno, reproduction of the temporary stored data would also be controlled by the STU 411, because the head end functions are provided in the set-top unit 411. Therefore, in Ueno, the set-top unit 411 controls all reproduction. In contrast to Ueno, the present invention provides, “*controlling ... the receiving device regarding a display method relating to the real-time reproduction of the plurality of stream information of the contents*” (amended claim 9), which differs from Ueno, because in Ueno, FIG. 4, the server 400 cannot control reproduction at the set-top unit 411, but the server 400 only controls distribution to the set-top unit 411.

Furthermore, it is evident that Ueno's server 400, 600 and 700 do not control reproduction at the set-top units 411, 611 and 711, in Ueno's FIGS. 4, 6, and 7, because there is no reproduction control signal lines from the servers 400, 600, and 700 to the decoders 412, 612 and 712 of the set-stop units 411, 611, and 711, respectively.

Furthermore, regarding independent claims 9 and 11, Ueno fails to disclose that the reproduction control unit controls the receiving unit based on importance level of the stream information of a content, because what Ueno discloses at column 14, lines 11-30, which is relied upon by the examiner on page 5 of the Office Action, is to ensure minimum reproduction transmission rate for transmitting the movie or the like, and Ueno does not disclose or suggest the present invention's importance level of the stream information at the content level in which “the reproduction control unit controls the receiving device *to reproduce a higher priority stream information of a content over ~~other~~ stream information of other contents based on the stored importance level information*” (amended claim 9).

As discussed above, the idea of the present invention is to externally control real-time content level distribution to a receiving device and to externally control real-time reproduction of the content at the receiving device (i.e., external server controlled client reproduction/rendering of real-time stream data), which Yao and Ueno do not disclose or suggest, because, for example, as shown in FIGS. 1, 2, 4, 6, 7 and 10 of Ueno, the servers do not control reproduction at the set-top units, but the servers only distribute content to the set-top units and the set-top units control all reproduction parameters. See, for example, page 32, lines 19-25 of the present Application.

CONCLUSION


Dependent claims 2 and 4-7 (depending from claim 3) recite patentably distinguishing features of their own, and, further, are at least patentably distinguishing due to their dependencies from independent claim 3.

In view of the amendments and remarks presented above, it is respectfully submitted that the application is in condition for allowance, and withdrawal of the rejection of claims 2-7, 9, 11, 12-13 and 15 and allowance of these claims is respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
STAAS & HALSEY LLP

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By: 
Mehdi Sheikerz
Registration No. 41,307

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501